# POPE JOAN: A RECOGNIZABLE SYNDROME

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Last year for Christmas I received a lavishly illustrated book from my friend and colleague Patrizia Bourelli. It was called *La Papessa Giovanna: Roma e Papato Tra Storia e Leggenda?*, and it was written by Cesare D'Onofrio. In perusing this beautiful book, I learned of the great controversy about the existence of a female pope during the Middle Ages. Because my scientific interest has been directed at understanding the genetic and hormonal basis for infants born with ambiguous genitalia, I began to search for a biological basis for the existence of a pope who was elected as a male but was unmasked as a female, as the legend goes.

The story of the female pope first appeared in a manuscript by friar Jean de Mailly in about 1250 A.D. During the late Middle Ages and Reformation dozens of people wrote about this scandal, many of them Franciscan and Dominican friars or Protestants, and their stories were widely believed (1). The most popular version, which was a best seller all over Europe for hundreds of years after its publication circa 1265, was that which appeared in friar Martin Polanus' *Chronicon Pontificum et Imperatum* (there is some debate as to whether Polanus wrote this section):

> After . . . Leo, John Anglicus, born at Mainz, was pope for 2 years, 7 months, and 4 days, and died in Rome, after which there was a vacancy in the papacy of 1 month. It is claimed that this John was a woman, who as a girl had been led to Athens dressed in the clothes of a man by a certain lover of hers. There she became proficient in a diversity of branches of knowledge, until she had no equal, and afterwards in Rome, she taught the liberal arts and had great masters among her students and audience. A high opinion of her life and learning arose in the city, and she was the choice of all for pope. While pope, however, she became pregnant by her companion. Through ignorance of the exact time when the birth was expected, she was delivered of a child while in procession from St. Peter's to the Lateran, in a narrow lane between the Coliseum and St. Clement's church. After her death, it is said that she was buried in that same place. The Lord Pope always turns aside from the street and it is believed by many that this is done because of abhorrence of the event. Nor is she placed on

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[a] For those who are troubled by the bust in Siena and the detour from Via San Giovanna, I recommend Rosemary and Darrell Pardoe's book listed in the References, which provides plausible explanations.

the list of the holy pontiffs, both because of her female sex and on account of the foulness of the matter.

Italian humanist Boccaccio, who relished the tale and included it in his *De Claris Mulieribus* (published circa 1350), was the first to give John Anglicus (Pope John VIII) a woman's name (Giliberta). The book was magnificently illustrated in French monasteries during the 15th century (Figure 1).

FIG. 1. Illustration from Boccaccio's *De Mulieribus Claris*, French, circa 1400.

There are various accounts of how Pope Joan died: some authors have her torn limb from limb by the angry crowd; others say she was dragged by horses through the streets of Rome. Petrarch (1304–1376), evidently thinking of the plagues of Revelation (2), added that after her death it rained blood for 3 days and nights and locusts with 6 wings and powerful teeth appeared in France.

What is the basis for these fantastic stories? To answer this question, it helps to have some idea of the historical framework (Figure 2). In 800, on Christmas Day, Charlemagne was crowned Holy Roman Emperor by Pope Leo III in thanks for his help in staving off the Lombards who periodically attacked Rome and for defending him from enemies among the Roman nobility, who had physically attacked him. But after Charlemagne's death in 814, the papacy fell increasingly under the sway of the impious and powerful Roman nobility (3, 4). The existence of this corruption is central to understanding the birth of the legend. Joan's papacy was placed by Martin Polanus and most of her other chroniclers in the years 855 to 857, between Popes Leo IV (847–855?) and Benedict III (?855–858) (Jean de Mailly and some others put her around 1100). But all of these accounts of Pope Joan were written long after she was said to have lived—in most cases 400 years after! The existence of a female pope is not mentioned in any private letters or official communications or histories at the time(s) of the alleged papacy. So why did the story appear?

The Franciscan and Dominican mendicant orders were founded around

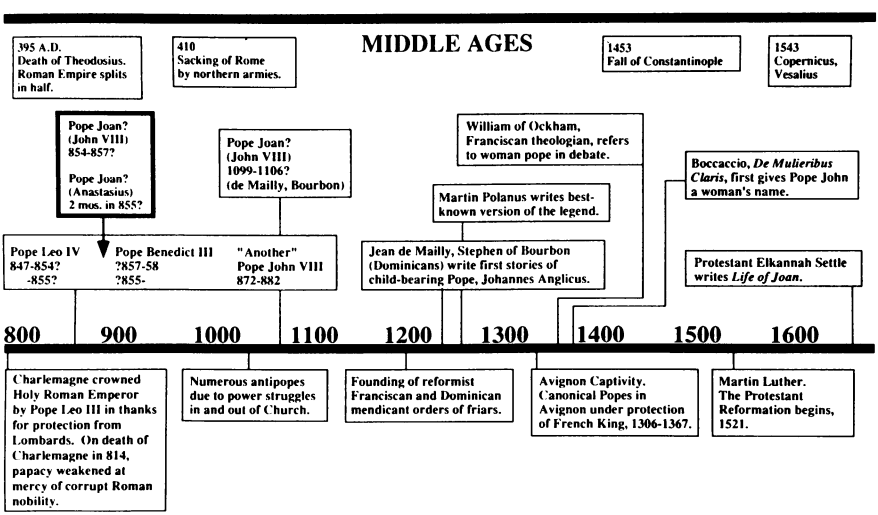


FIG. 2. Timeline of the Middle Ages.

1200 in reaction to the corruption and wealth of the Church. But at this time, Pope Innocent III was struggling to reassert a righteous authority and was not inclined to let his clerics find their own path. Dominican and Franciscan monks may well have invented the scandalous story in their fight for independence. The direct inspiration for the tale may have been the women of the powerful Theophylact family: matriarch Theodora had purchased the papacy for her lover, who became Pope John X (914–928). Pope John X was then imprisoned by Theodora's daughter Marozia so that her own son, whose father was an even earlier pope (Sergius III), could become Pope John XI (931–35) after she had arranged the murders of two intervening popes (2).

Another avenue for this legend might have been the Christian literary tradition of the female saint in male disguise, which derives from the early legend of St. Pelagia the Penitent (2). Whatever the first source of the Pope Joan legend, turmoil within the Church continued for centuries, culminating in the Protestant Reformation, and so the story lived on, along with growing controversy as to its truth.

Is there any solid evidence that Pope Joan ever lived? There are three facts to weigh. The first is this: In the nave of the Cathedral of Siena is a series of busts representing each of the legitimate popes. The head of Johannes VIII, Femina de Anglia, was placed between those of Leo IX and Benedict III until 1600, when Pope Clement VIII ordered it removed, and it was recycled as the head of Pope Zacchary. Was this a coverup?

Second, there is the famous "Sedia Gestatoria," a red marble chair, now in the Vatican museum (Figure 3), which has a perforated seat. It is known that this chair was used in the ceremonies of installation of the popes between 1099 (Paschall II) and 1513 (Leo X) (2). It is *rumored* that it was used to ascertain the gender of popes-elect as a direct result of the scandal of a real Pope Joan (5). The "junior cleric present" purportedly palpated the genitals of the papal candidate through the hole in the bottom of the chair, and, if he found what he expected, shouted in a loud voice, "Testiculos habet et bene pendentes. (He has well-formed testicles)." To which all the clerics replied, "'Habe ova noster papa (Our father is virile)'" (Figure 4) (2, 6).

Finally, there is the fact that around the time that the legend of Joan was spread by Martin Polanus' book, formal papal processions began to turn off the most direct route between their home in The Lateran Palace and St. Peter's to avoid the place where Joan was said to have given birth.

I think that the story of Pope Joan must be a legend because it is very hard for me to believe that this fantastic event could have occurred in the 9th century without a contemporary written record. Yet despite the unlikelihood of its truth, this tale has continued to be retold and even

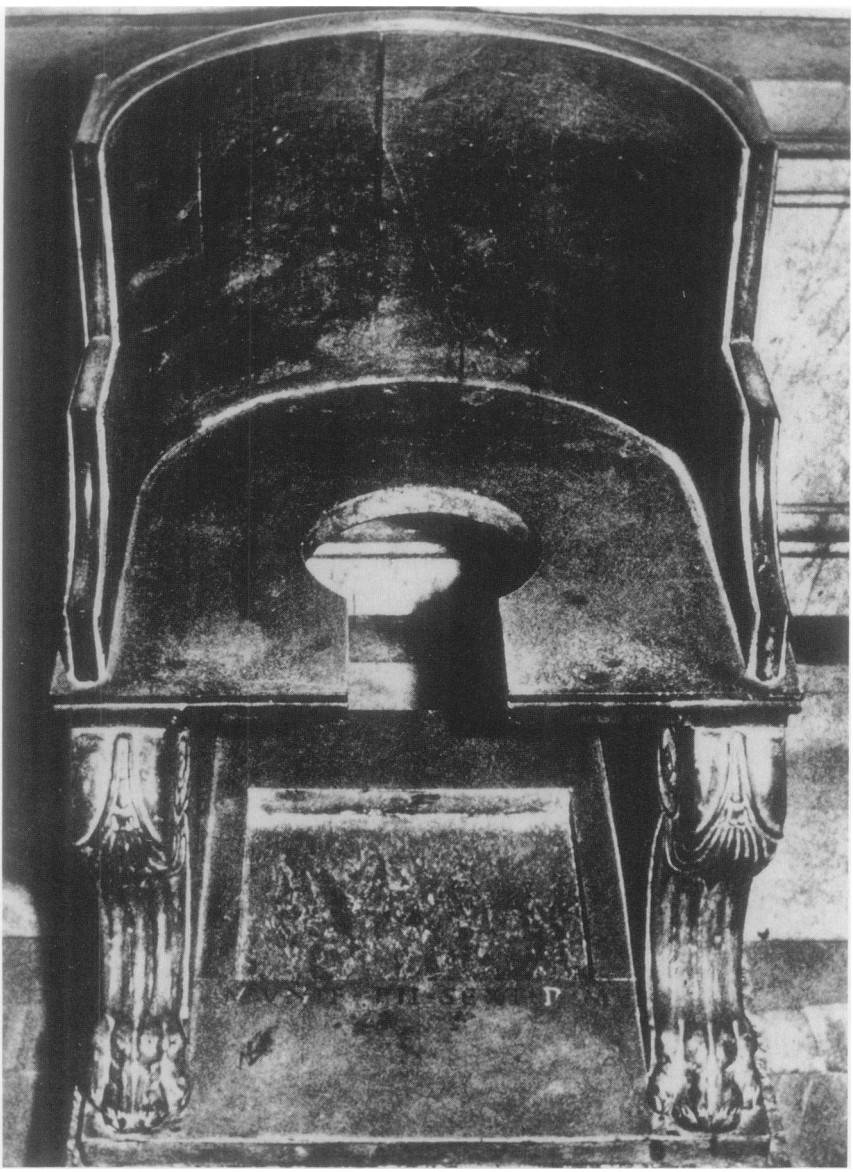

FIG. 3. Red porphyry chair with perforated seat in the Vatican Museum.


FIG. 4. The palpation of the pope-elect's genitals. Illustration of John Wolfius' *Lectionem*, 1671.

believed up to the present day. It has been the vehicle for both ribald mockery and serious accusation of the Church. It has been used for feminist propaganda, as a basis of romantic fiction and drama, and in card games such as the Tarot, which has a card, the High Priestess, first identified with Pope Joan in the famous deck made for the Visconti-Sforza family by Bonifacio Bembo in the 1400s (Figure 5).

My brother-in-law is one of the chief librarians of the Library of Congress, and when I was preparing this lecture, I asked him to send me everything he had on Pope Joan. I was amazed to find that there are hundreds of publications about Pope Joan. Many are written by historians sorting through the evidence, but the story has a life of its own. In the 20th century, at least 6 novels and plays about her have been published. One of them, by Emmanuel Royidis, is a classic of contemporary Greek literature which was translated into English by novelist Lawrence Durrell, who called it "a masterpiece of irreverence." The Greek Orthodox Church banned the book and excommunicated Royidis. Michael Anderson (director of "Around the World in 80 Days," "Logan's Run," and "The Shoes of the Fisherman") made the movie "Pope Joan" starring Liv Ullmann. Caryll Churchill made Pope Joan one of the five women characters of her successful play "Top Girls," produced in New York in 1982 by the late Joseph Papp.

If Pope Joan was a legend, why as a civilization have we not lost interest in her after all these centuries? Why do many people persist in believing that her story could have been true?

The fact is, on a biological basis, it might have been. I have known a man who if he had lived in the 9th century could have been Pope Joan. He became my patient because one day a nurse, who was his wife, came to me and said, "Dr. New, I think my husband has congenital adrenal hyperplasia and is a female pseudohermaphrodite." They'd been married for 10 years. Why did she think this? She said, "Because he bleeds from his penis every month." The patient proved, in fact, to be a female with 21-hydroxylase deficiency who had lived all his life as a male. He had had many female lovers before he married. His wife was entirely satisfied with their sexual relationship. But he was bleeding monthly. Presumably, he was having menstrual periods, though he had never been treated. And I suppose it would be possible to think that this patient could be reproductive as a woman, since he was having cyclical menstrual periods.

With such a biological basis, the story of Joan would be that Pope John VIII was a female pseudohermaphrodite who had a homosexual liaison, got pregnant, and delivered a child. The endocrinological version of the legend is that Pope Joan had a recognizable syndrome: classical 21-hydroxylase deficiency.

FIG. 5. The High Priestess Card from the Bonifacio Bembo Tarot deck, circa 1400.

Pondering this scenario led me to investigate what was known about sexual differentiation in Joan's time. Medical science in the Middle Ages derived primarily from the theories and observations of Aristotle and Hippocrates and their 2d century heirs and interpreters Galen and Soranus. Because the authority of the ancients was so powerful, it was difficult for medieval scientists to progress in their understanding of physiology, though by the 11th century there was some admixture of the Western legacy with Arabic and Jewish medicine (7).

The medieval view of male and female physiology was quite different from ours: Men were thought to be more perfect by nature: hotter and dryer, and therefore better metabolizers. Their beards, chest hair, and more massive musculature were the endproducts of their exuberant metabolism. Women, on the other hand, were metabolically imperfect because they were essentially too cold. They needed menstruation to eliminate unmetabolized fluid, unless it was shunted via the "quilin vein" (Hippocrates) to the breasts, where it became milk, or to the uterus, where it nourished the fetus.

Unused, menstrual blood was a kind of poisonous byproduct of female metabolism. According to Vincent of Beauvais (8) (1478) menstrual blood could prevent cereals from sprouting, cause grapes to sour, kill herbs, make trees lose their fruit, rust iron, turn bronze black, give dogs rabies, and dissolve glue made of bitumen that was impervious to iron. But without the purgation of menstruation, a woman was dangerous to herself and others. Hence the association of older, menopausal women with witches: their glance could kill a child in its cradle, etc. This fear of women's physiology has survived into our own day. Folk wisdom still has it that menstruating women can spoil pickles, bread, meat, or houseplants by a touch or glance (9).

Medieval doctors had some very odd ideas about the uterus. Plato had described the uterus as "like a wild beast of the forest" and believed it would wander around the body "vexed and aggrieved" if deprived of the function of childbearing (10). In the Middle Ages there was a treatment called "suffumigation" which involved putting sweet- or foul-smelling substances at the nose or vagina to lure the uterus back to its proper place (10). There were two popular views of uterine anatomy which had been formulated on the basis of dissections of animals (monkeys, bears, and pigs), since for many centuries the Church forbade human dissection. Following Galen, some thought the uterus had two chambers, a warmer one on the right, near the vena cava, where male fetuses gestated, and a colder one on the left for female fetuses. Fascination with numerology had led some others to see seven chambers in the uterus: three on the right for males, three on the left for females, and one in the middle, amazingly, specifically for hermaphrodites (Figure 6) (7). What deter-

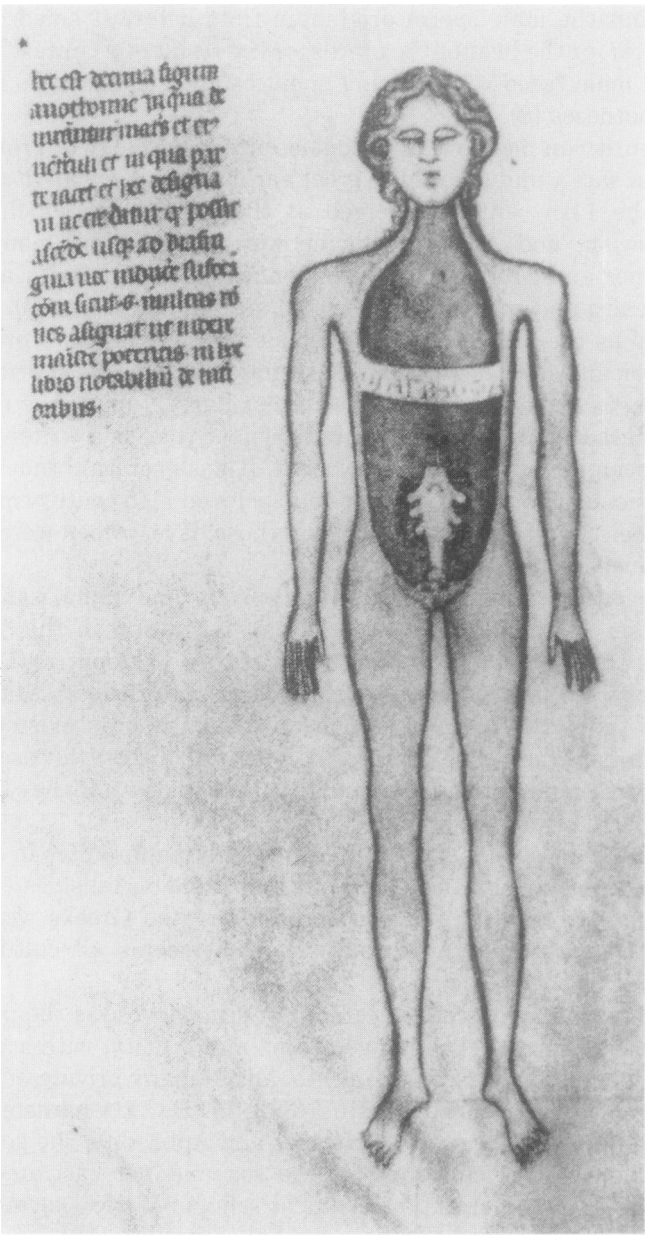

FIG. 6. The tenth figure of the treatise of Guy of Vigevano, showing a woman whose womb has 7 compartments.

mined the fetus' sex was hotly debated—whether it might be the side of the body that the male sperm originated from before it acted on inert female matter, or the heat of the uterus, or the result of a contest between female and male "seed" of opposing qualities and strengths, to mention several hypotheses (8).

The authority on medieval and Renaissance gynecology is Trotula (11, 12). Trotula was a midwife of the great early medical school at Salerno, which in the 11th century emerged as the crucible in which Greek, Roman, Jewish, and Arabic medicine were mixed. The manuscripts *Trotula Major* and *Trotula Minor* were enormously popular treatises on women's health and cosmetology, written around the year 1150. Trotula was held up as the prototype of the female physician by two presidents of the American Medical Women's Association and, as a celebrity, has a place setting in Judy Chicago's "The Dinner Party," one of the flagships of feminist art (Figure 7) (13). But it turns out that as a writer Trotula may have been a man posing as a woman. It has been said that she was a male physician who took the famous and beloved 11th century midwife's name in order to gain credibility, since in those days women were treated almost exclusively by other women (13).

In the scientific schema of the Middle Ages and Renaissance, hermaphroditism was understood as a lack of resolution in the "forming faculty," as the famous barber-surgeon Ambrose Paré put it (14). Hermaphrodites were integrated quite forthrightly into the social fabric. By the end of the 17th century, French and English laws existed which required hermaphrodites "To chuse the sexe which they will use, and in which they will remaine and live, judging them to death if they be found to have departed from the sexe they made choice of" (14).

This was in marked contrast to the fate of hermaphrodites in classical Greece and Rome, where they were put out to die on hillsides (15). But despite an abhorrence for real hermaphrodites, the Greeks were fascinated by the idea of hermaphroditism, as it seems all cultures are, including our own.

The Greeks had a god called Hermaphroditus, who was the patron of sexual union (Figure 8). The image of this minor deity, with a woman's breasts and a penis, was painted on the walls of many private homes. He is first written about in Theophrastus' (382–287 B.C.) "Characters" (16). Hermaphroditus was the child of Hermes and Aphrodite, the goddess of love, who herself was conceived of the sea and her castrated father Chronos' testicles. According to classical scholar Marie Delcourt, Hermaphroditus' bisexuality was a holy symbol of fertility (15).

Hermaphroditic gods and demigods appear in non-Western cultures, as well. When I was visiting friends in Houston, I went to the Menil Collection and saw this extraordinary African figure (Figure 9), which


FIG. 7. Trotula's place setting in Judy Chicago's "The Dinner Party."

FIG. 8. Hermaphroditus. Greek vase in the Kunsthistorisches Museum, Vienna.

FIG. 9. Hermaphroditic figure from the Dogon tribe. (From the Menil Collection, Houston, TX. Reproduced with permission.)

comes from the Dogon tribe, an isolated people whom Marcel Griaule discovered in 1946 living on the Bandiagara Escarpment in a Stone Age culture (17, 18). In the Hindu religion, there is an androgynous representation of Siva and Parvati, called Ardhanarisvara, "lord who is half-woman" (Figure 10). In this case, the male and female attributes are on opposite sides of the body.

In surveying later European art and literature, I easily found signs of a fascination with hermaphrodites. For instance, there is this extraordinary painting by José de Ribera, commissioned for King Philip IV of Spain in 1631 (Figure 11). It is a portrait of Maddalena Ventura of Naples, mother of 7, who grew a luxuriant beard at age 37 and is shown nursing her last child when she was 52. She could be a patient with nonclassical 21-hydroxylase deficiency. Another example is Elizabethan travel writer John Mandeville's claim to have visited "The Land of the Hermaphrodites." And, of course, hermaphrodites have been featured in circuses and tabloids in the Western world for centuries (14): in the 18th century the "Fugger News Letters" reported "a Landsknecht attached to an Italian regiment" who surprised his wife by giving birth (19).

If anything, I think that interest in gender ambiguity has grown in modern times. In the field of medicine, psychoendocrinologist John Money and others have made fascinating observations about the roles of pre- and postnatal sex hormones on gender identity (20–26). In the cultural world, French sociologist Michel Foucault recently published the 19th century diary of a pseudohermaphrodite tragically forced to declare herself a male when in her twenties. She eventually committed suicide (27):

> So it was all over. According to my civil status, I was henceforth to belong to that half of the human race which is called the stronger sex. I, who had been raised until the age of 21 in religious houses, among shy female companions, was going to leave that whole delightful past far behind me, like Achilles, and enter the lists, armed with my weakness alone and my deep inexperience of men and things.

The play "M. Butterfly," a fictional version of a true story about a 20-year love affair between two men, one of whom thought the other was a woman, had a long run on Broadway, starring Tony Randall and Alec Mapa. Last spring, *The New York Times* chose *Raptor*, a mediocre novel about a pair of hermaphrodite lovers, for review (28). And what are we to make of androgynous superstars like Michael Jackson, Boy George, and Patti Smith (Figure 12)? Is this disguise, transformation, or a desire to be ambiguous?

No wonder the story of Pope Joan has resurfaced and once again inspired art and controversy. Whether or not she really lived and had a recognizable syndrome, Pope Joan is a symbol of the fascination and

FIG. 10. Ardhanarisvara. Late 11th century; Varenda Research Museum. (From Susan L. Huntington, *The Art of Ancient India; Buddhist, Hindn, Jain,* with contributions by John C. Huntington, New York, Weatherhill, 1985. Reproduced with permission.)

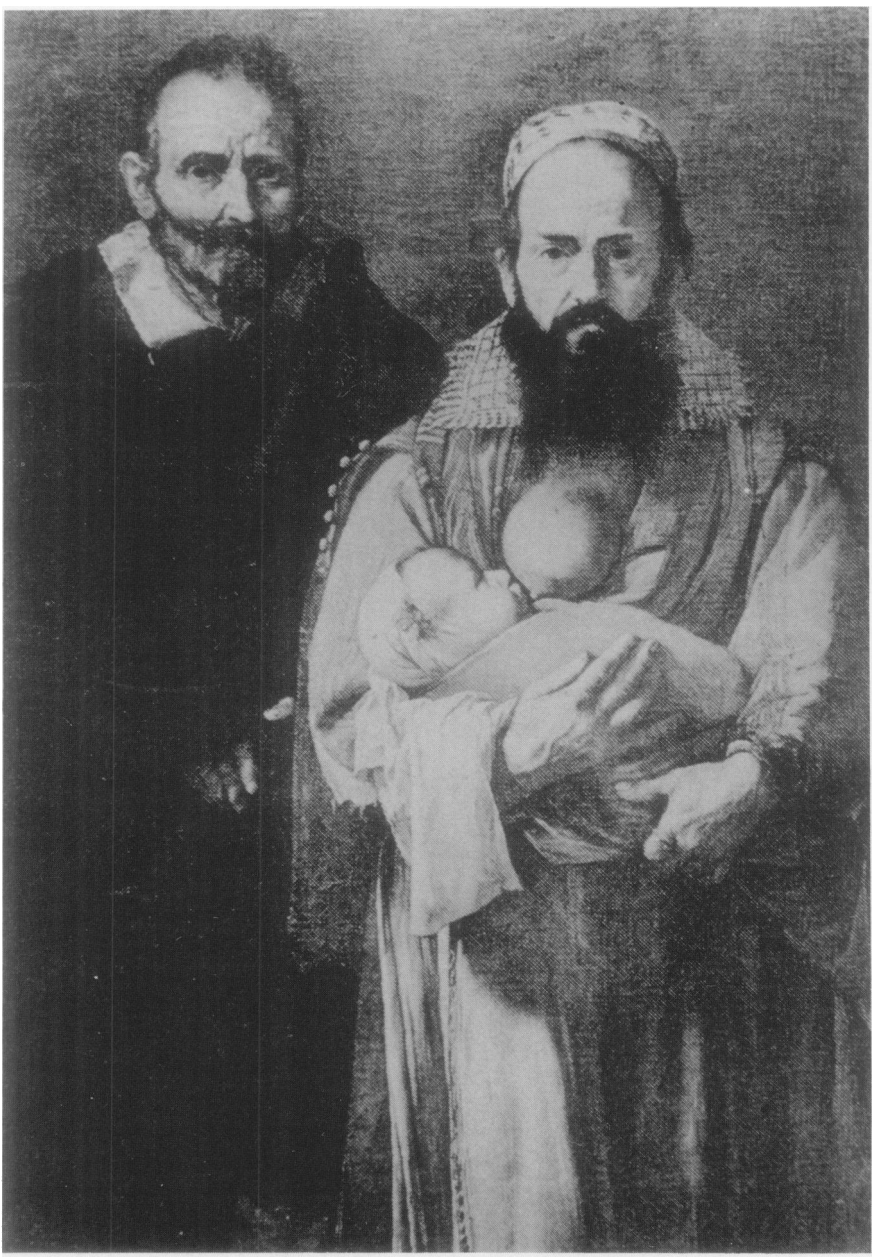

FIG. 11. Maddalena Ventura by Jose de Ribera, 1631. Painting in Toledo, Spain.

FIG. 12. Michael Jackson.

tragedy of gender ambiguity, and as such is likely to remain in the public eye.

## ACKNOWLEDGEMENT

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